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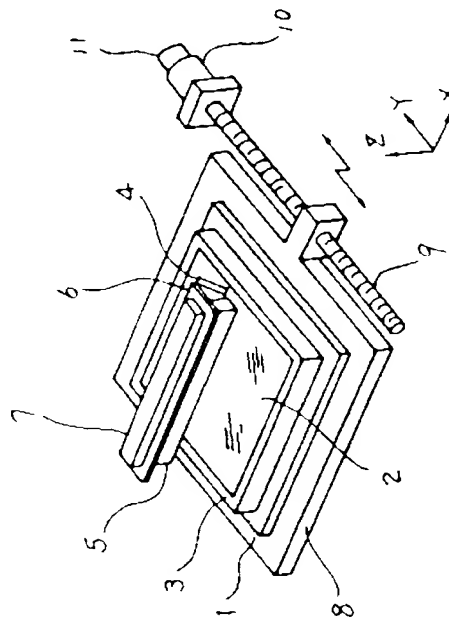
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APPLICANT : HITACHI LTD;

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H01L 21/30

TITLE : FOREIGN MATTER DETECTING  
APPARATUS



ABSTRACT : PURPOSE: To enable the reliable detection of foreign matters, by providing a plurality of illuminating means while disposing them so that light fluxes emitted from adjacent illuminating means overlap partly each other.

CONSTITUTION: A glass substrate 1 is set on a setting table 8, and a film 2 for preventing the sticking of foreign matters is stuck on the substrate 1. A foreign matter on the surface of the film 2 gives scattered light by the application of illuminating light of an illuminating light source 4 and an image thereof is projected onto a light-sensing surface of a photoelectric conversion element 7. Detection of the foreign matters in the direction X of the film 2 is executed in this way, and by moving the setting table 8 in the direction Y occasionally by means of a motor 10, a feed screw 9, etc., the detection of the foreign matters is implemented on the whole of the film 2. In this case, a lens array 5 is provided for projecting onto the light-sensing surface of the element 7 a strip-shaped illuminating element composed of a plurality of light fluxes emitted from a plurality of light sources 4 onto the surface of the film 2, and it is constructed of a large number of imaging lenses. By arranging these imaging lenses in a large number in a straight line above the film 2, the foreign matters on the surface of the film 2 can be detected in a wide area without fail.

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